

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

PTO/SB/08A (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT			Complete if Known		
			Application No.	10/007,734	
			Filing Date	November 9, 2001	
			First Named Inventor	Yaochu Jin	
			Art Unit	2121 2129	
			Examiner Name	George B. Davis	
Sheet	1	of	1	Attorney Docket Number	23077-06445

U.S. PATENT DOCUMENTS				
Examiner Initials*	Cite No. ¹	Document No. Number – Kind Code ² (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document

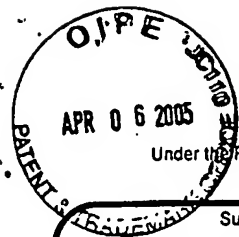
FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ – Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶

OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ⁶	
C.D.		P.K. DASH, et al., Genetic Optimization of a Self organizing Fuzzy-Neural network For Load Forecasting, Department of Electrical engineering, Regional Engineering College, Rourkela, India, 2000 IEEE, pgs 1011-1016		

Examiner Signature	George Davis	Date Considered	12/2/05
--------------------	--------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.
Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT			Substitute for form 1449A/PTO		Complete if Known	
			Application No.		10/007,734	
			Filing Date		November 9, 2001	
			First Named Inventor		Yaochu Jin	
			Art Unit		2121 2129	
			Examiner Name		George B. Davis	
Sheet	1	of	2	Attorney Docket Number		23077-06445

U.S. PATENT DOCUMENTS				
Examiner Initials*	Cite No. ¹	Document No. Number - Kind Code ² (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
C.B.	A1	US-2002/0138457	09-2002	Jin et al.
C.B.	A2	US-5,265,830	11-1993	Allen, John B.
C.B.	A3	US-5,319,781	06-1994	Syswerda, Gilbert P.
C.B.	A4	US-5,355,528	10-1994	Roska et al.
C.B.	A5	US-5,461,570	10-1995	Wang et al.
C.B.	A6	US-5,541,848	07-1996	McCormack et al.
C.B.	A7	US-5,819,244	10-1998	Smith, Brian L.
C.B.	A8	US-5,924,048	07-1999	McCormack et al.
C.B.	A9	US-6,449,603	09-2002	Hunter, Lawrence E.
C.B.	A10	US-6,578,018	06-2003	Ulyanov, Sergei V.
C.B.	A11	US-6,606,612	08-2003	Rai et al.
C.B.	A12	US-6,662,167	12-2003	Xiao, Jing

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ - Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶

Examiner Signature	George Davis	Date Considered	12/2/05
--------------------	--------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.
Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

23077/06445/DOCS/1514445.1

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Complete if Known	
				Application No.	10/007,734
				Filing Date	November 9, 2001
				First Named Inventor	Yaochu Jin
				Art Unit	2121-2129
				Examiner Name	George B. Davis
Sheet	2	of	2	Attorney Docket Number	23077-06445

OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
C-1	C1	AGREZ; Active power estimation by averaging of the DFT coefficients; Proceedings of the 17 th IEEE Instrumentation and Measurement Technology Conference; Vol. 2; 1-4 May 2000; pp. 630-635.	
C-2	C2	CLAYTON et al; Acoustic wavefield propagation using paraxial axtrapolators; Proceedings of the third conference on Hypercube concurrent computers and applications; Vol. 2; January 1989.	
C-3	C3	CRUMP; Numerical Inversion of Laplace Transforms Using a Fourier Series Approximation; Journal of the ACM (JACM); Vol. 23, Is. 1; January 1976.	
C-4	C4	GUPTA et al., Automated test data generation using an iterative relaxation method; Proceedings of the 6 th ACM SIGSOFT international symposium on Foundations of software engineering; ACM SIGSOFT Software Engineering Notes; Vol. 23, Is 6; November 1998.	
C-5	C5	JIN et al., On generating FC3 fuzzy rule systems from data using evolution strategies; IEEE Transactions on Systems, Man and Cybernetics Part B; Vol. 29, Is. 6; Dec. 1999; pp. 829-845.	
C-6	C6	LI et al; Text enhancement in digital video using multiple frame integration; Proceedings of the seventh ACM international conference on Multimedia (Part 1); October 1999.	
C-7	C7	MITLOHNER; Classifier systems and economic modeling; Proceedings of the conference on Designing the future; ACM SIGAPL APL Quote Quad; Vol. 26, Is. 4; June 1996.	
C-8	C8	SENDHOFF; Evolutionary optimised ontogenetic neural networks with incremental problem complexity during development; Proceedings of the 2000 Congress on Evolutionary Computation; Vol. 2; 16-19 July 2000; pp. 1443-1450.	

Examiner Signature	George Davis	Date Considered	12/2/05
--------------------	--------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

23077/06445/DOCS/1514445.1



Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for H. R. 1449A/PTO

Complete if Known

Application No.	10/007,734
Filing Date	November 9, 2001
First Named Inventor	Yaochu Jin
Art Unit	2121 2129
Examiner Name	George B. Davis
Attorney Docket Number	23077-06445

Sheet	1	of	1
-------	---	----	---

U.S. PATENT DOCUMENTS				
		Document No.		
Examiner Initials*	Cite No. ¹	Number - Kind Code ² (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
	A1	US-5,724,258	03-03-1998	Roffman

FOREIGN PATENT DOCUMENTS					
		Foreign Patent Document			
Examiner Initials*	Cite No. ¹	Country Code ³ – Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶

[illegible]

**Examiner
Signature**

George Davis

Date
Considered

12/2/05

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

23077/06445/DOCS/1521845.1

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Application No.	10/007,734
		Filing Date	November 9, 2001
		First Named Inventor	Yaochu Jin
		Art Unit	2121 2129
		Examiner Name	George B. Davis
Sheet 1 of 1	Attorney Docket Number	23077-06445	

U.S. PATENT DOCUMENTS				
Examiner Initials*	Cite No. ¹	Document No. Number - Kind Code ² (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		US-		

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ - Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T ⁶

OTHER REFERENCES - NON-PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published			T ⁶
C.D.	A1	European Search Report, EP Application No. 00124824.4, June 14, 2001.			
G.D.	A2	ISHIBUCHI, H. et al., "Local Search Procedures In A Multi-Objective Genetic Local Search Algorithm For Scheduling Problems," IEEE, 1999, pp. 665-670.			
G.D.	A3	KNOWLES, J. et al., "The Pareto Archived Evolution Strategy: A New Baseline Algorithm For Pareto Multiobjective Optimisation," IEEE, 1999, pp. 98-105.			
G.D.	A4	LOHN, J.D. et al., "A Comparison Of Dynamic Fitness Schedules For Evolutionary Design Of Amplifiers," 6 pages.			
G.D.	A5	TUSON, A. et al., "Adapting Operator Settings In Genetic Algorithms," Final Draft Of The Paper Which Will Appear In <i>Evolutionary Computation</i> , March 25, 1998, pp. 1-17.			

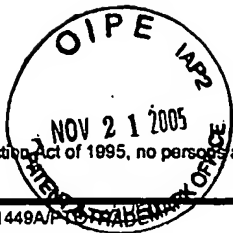
Examiner Signature	George Davis	Date Considered	12/2/05
--------------------	--------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

23077/06445/DOCS/1529782.1



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

PTO/SB/08A (10-01)
Approved for use through 10/31/2002. OMB 0851-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/P				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application No.	10/007,734
				Filing Date	November 9, 2001
				First Named Inventor	Yaochu Jin
				Art Unit	2121-2129
				Examiner Name	George B. Davis
Sheet	1	of	8	Attorney Docket Number	23077-06445

U.S. PATENT DOCUMENTS				
Examiner Initials*	Cite No. ¹	Document No. Number - Kind Code ² (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
	A1	US-5,724,258	03-03-1998	Roffman

FOREIGN PATENT DOCUMENTS				
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ - Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document

OTHER REFERENCES - NON-PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published		
C.D.	C1	BALUJA, S. et al., "Combining Multiple Optimization Runs With Optimal Dependency Trees," June 30, 1997, 12 pages, CMU-CS-97-157, Justsystem Pittsburgh Research Center, Pittsburgh, PA and School Of Computer Science, Carnegie Mellon University, Pittsburgh, PA.		
C.D.	C2	BALUJA, S., "Population-Based Incremental Learning: A Method For Integrating Genetic Search Based Function Optimization And Competitive Learning," Population Based Incremental Learning, June 2, 1994, pp. 1-41, CMU-CS-94-163, School Of Computer Science, Carnegie Mellon University, Pittsburgh, PA.		
C.D.	C3	BOSMAN, P. et al., "Advancing Continuous IDEAs With Mixture Distributions And Factorization Selection Metrics," 6 pages, Institute Of Information And Computing Sciences, Utrecht University, Utrecht, The Netherlands.		
C.D.	C4	BOSMAN, P. et al., "An Algorithmic Framework For Density Estimation Based Evolutionary Algorithms," December 1999, pp. 1-63, Department Of Computer Science, Utrecht University, Utrecht, The Netherlands.		
C.D.	C5	BOSMAN, P. et al., "Continuous Iterated Density Estimation Evolutionary Algorithms Within The IDEA Framework," 10 pages, Department Of Computer Science, Utrecht University, Utrecht, The Netherlands.		
C.D.	C6	BOSMAN, P. et al., "IDEAs Based On The Normal Kernels Probability Density Function," March 2000, pp. 1-16, Department Of Computer Science, Utrecht University, Utrecht, The Netherlands.		

Examiner Signature	George Davis	Date Considered	12/2/05
--------------------	--------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 801.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

23077/06445/DOCS/1566688.1.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				Complete If Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application No.	10/007,734
				Filing Date	November 9, 2001
				First Named Inventor	Yaochu Jin
				Art Unit	2121-2129
				Examiner Name	George B. Davis
Sheet	2	of	8	Attorney Docket Number	23077-06445

OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²	
G.B.	C7	BOSMAN, P. et al., "Mixed IDEAs," December 2000, pp. 1-71, UU-CS-2000-45, Institute Of Information And Computing Sciences, Utrecht University, Utrecht, The Netherlands.		
G.B.	C8	BOSMAN, P. et al., "Negative Log-Likelihood And Statistical Hypothesis Testing As The Basis Of Model Selection In IDEAs," August 2000, pp. 1-17, Department Of Computer Science, Utrecht University, Utrecht, The Netherlands.		
G.B.	C9	BRANKE, J. et al., "Faster Convergence By Means Of Fitness Estimation," October 1, 2002, pp. 1-9, Institute AIFB, University of Karlsruhe, Karlsruhe, Germany.		
G.B.	C10	COSTA, M. et al., "MOPED: A Multi-Objective Parzen-Based Estimation of Distribution Algorithm for Continuous Problems," Polytechnic of Turin, 12 pages, Turin, Italy.		
G.B.	C11	DEB, K. et al., "A Computationally Efficient Evolutionary Algorithm For Real-Parameter Optimization," KanGAL Report Number 2002003, April 11, 2002, pp. 1-21, Kanpur Genetic Algorithms Laboratory, (KanGAL), Indian Institute Of Technology Kanpur, Tsutsui Kanpur, India.		
G.B.	C12	DEB, K. et al., "A Fast And Elitist Multi-Objective Genetic Algorithm: NSGA-II," KanGAL Report No. 200001, 20 pages, Kanpur Genetic Algorithms Laboratory (KanGAL), Indian Institute Of Technology Kanpur, Kanpur, India.		
G.B.	C13	DEB, K., "A Population-Based Algorithm-Generator For Real-Parameter Optimization," KanGAL Report Number 2003003, 25 pages, Kanpur Genetic Algorithms Laboratory (KanGAL), Indian Institute Of Technology, Kanpur, Kanpur, India.		
G.B.	C14	DEB, K. et al., "Self-Adaptation In Real-Parameter Genetic Algorithms With Simulated Binary Crossover," GECCO '99/Genetic Algorithms, 8 pages, Kanpur Genetic Algorithms Laboratory (KanGAL), Department of Mechanical Engineering, Indian Institute Of Technology Kanpur, India and Department Of Computer Science/XI, University of Dortmund, Dortmund, Germany.		
G.B.	C15	DEB, K. et al., "Simulated Binary Crossover For Continuous Search Space," November 1994, pp. 1-33, IITK/ME/SMD-94027, Convenor, Technical Reports, Department Of Mechanical Engineering, Indian Institute Of Technology, Kanpur, India.		
G.B.	C16	DE BONET, J. et al., "MIMIC: Finding Optima By Estimating Probability Densities," Advances In Neural Information Processing Systems, 1997, 8 pages, MIT Press, Cambridge, MA.		
G.B.	C17	EL-BELTAGY, M. A. et al., "Metamodeling Techniques For Evolutionary Optimization Of Computationally Expensive Problems: Promises And Limitations," Genetic Algorithms And Classifier Systems, pp. 196-203.		
G.B.	C18	EMMERICH, M. et al., "Metamodel – Assisted Evolution Strategies," PPSN VII, LNCS 2439, 2002, pp. 361-		

Examiner Signature	George Davis	Date Considered	12/2/05
--------------------	--------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

23077/06445/DOCS/1566688.1

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application No.	10/007,734
				Filing Date	November 9, 2001
				First Named Inventor	Yaochu Jin
				Art Unit	2121 2129
				Examiner Name	George B. Davis
Sheet	3	of	8	Attorney Docket Number	23077-06445

OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published		T ²
C.D.		370, Springer Verlag, Berlin, Heidelberg.		
	C19	ESHelman, L. et al., "Crossover Operator Biases: Exploiting the Population Distribution," Proceedings of the Seventh International Conference on Genetic Algorithms, 1997, pp. 354-361.		
	C20	ESHelman, L. et al., "Real-Coded Genetic Algorithms and Interval-Schemata," Philips Laboratories, pp. 187-202, New York, New York, US.		
	C21	FUKUDA, K., "What is Voronoi Diagram in R ² ?", [online]. August 26, 2004 [Retrieved on August 18, 2005] Retrieved from the Internet<URL:http://www.ifor.math.ethz.ch/~fukuda/polyfaq/node29.html>		
	C22	"Genetic Algorithms For Optimization Taking Account Of Characteristics Preservation," pp. 1-110.		
	C23	GRAVES, R.W. et al., "Acoustic Wavefield Propagation Using Paraxial Explorators," ACM, 1988, pp. 1157-1175.		
	C24	HARIK, G. et al., "The Compact Genetic Algorithm," IEEE, 1998, pp. 523-528.		
	C25	HARIK, G., "Linkage Learning Via Probabilistic Modeling In The ECGA," IlliGAL Technical Report 99010, January 1999, 19 pages, Illinois Genetic Algorithms Laboratory, Department of General Engineering, Urbana, IL.		
	C26	JAIN, A.K. et al., "Data Clustering: A Review," ACM Computing Surveys, September 1999, pp. 264-323, Vol. 31, No. 3, Michigan State University, Indian Institute Of Science and The Ohio State University.		
	C27	JIMENEZ, D. et al., "Dynamically Weighted Ensemble Neural Networks For Classification," IEEE, 1998, pp. 753-756, The University Of Texas Health Science Center at San Antonio.		
	C28	JIN, Y. et al., "Connectedness, Regularity And The Success Of Local Search In Evolutionary Multi-Objective Optimization," 8 pages, Honda Research Institute Europe, Offenbach/M, Germany.		
	C29	JIN, Y. et al., "On Evolutionary Optimization With Approximate Fitness Functions," 8 pages, Future Technology Research, Honda R&D Europe (D) GmbH, Offenbach/Main, Germany.		
	C30	JIN, Y. et al., "Fitness Approximation In Evolutionary Computation – A Survey," 8 pages, Future Technology Research, Honda R&D Europe (D) GmbH, Offenbach/Main, Germany.		
	C31	JIN, Y. et al., "A Framework For Evolutionary Optimization With Approximate Fitness Functions," IEEE Transactions On Evolutionary Computation, October 2002, pp. 481-494, Vol. 6, No. 5.		
	C32	KHAN, N. et al., "Multi-Objective Bayesian Optimization Algorithm," IlliGAL Report No. 2002009, March 2002, pp. 1-10, Illinois Genetic Algorithms Laboratory, University Of Illinois At Urbana-Champaign, Urbana, IL.		
C.D.	C33	KIM, H.S. et al., "An Efficient Genetic Algorithm With Less Fitness Evaluation By Clustering," IEEE, 8 pages,		

Examiner Signature	George Davis	Date Considered	12/2/05
--------------------	--------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application No.	10/007,734
				Filing Date	November 9, 2001
				First Named Inventor	Yaochu Jin
				Art Unit	2121 2129
				Examiner Name	George B. Davis
Sheet	4	of	8	Attorney Docket Number	23077-06445

OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cita No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published		
C.D.		MW Lab, Mindware, Co., Ltd., Seoul, Korea and Department of Computer Science, Yonsei University, Seoul, Korea.		
	C34	KITA, H. et al., "Multi-Parental Extension of the Unimodal Normal Distribution Crossover for Real-Coded Genetic Algorithms," IEEE, 1999, pp. 1581- 1588.		
	C35	KVASNICKA, V. et al., "Hill Climbing with Learning (An Abstraction of Genetic Algorithm)", Slovak Technical University, 6 pages, Bratislava, Slovakia.		
	C36	LARRANAGA, P. et al., "Optimization By Learning And Simulation Of Bayesian And Gaussian Networks," Technical Report EHU-KZAA-IK-4/99, December 31, 1999, pp. 1-70, Intelligent Systems Group, Dept. Of Computer Science And Artificial Intelligence, University Of The Basque Country.		
	C37	LAUMANN, M. et al., "Bayesian Optimization Algorithms For Multi-Objective Optimization," 10 pages, ETH Zurich, Computer Engineering And Networks Laboratory and VUT Brno, Faculty Of Information Technology, Brno.		
	C38	LIU, Y. et al., "Evolutionary Ensembles With Negative Correlation Learning," pp. 1-27, The University Of Aizu, Fukushima Japan, The University Of Birmingham, Birmingham, U.K. and Evolvable Systems Laboratory, Computer Science Division, Ibaraki, Japan.		
	C39	LIU, Y. et al., "Negatively Correlated Neural Networks Can Produce Best Ensembles," Australian Journal Of Intelligent Information Processing Systems, Spring/Summer 1997, pp.176-185, Computational Intelligence Group, School Of Computer Science, University College, Australian Defence Force, The University Of South Wales, Canberra, Australia.		
	C40	LIU, Y. et al., "Simultaneous Training Of Negatively Correlated Neural Networks In An Ensemble," IEEE Transactions On Systems, Man, And Cybernetics – Part B: Cybernetics, December 1999, pp. 716-725, Volume 29, No. 6.		
	C41	LOBO, F. et al., "Extended Compact Genetic Algorithm In C++," IlliGAL Report 99016, June 1999, pp. 1-4, Illinois Genetic Algorithms Laboratory, Department Of General Engineering, University Of Illinois At Urbana-Champaign, Urbana, IL.		
	C42	MUHLENBEIN, H., "The Equation For The Response To Selection And Its Use For Prediction," pp. 1-46, RWCP Theoretical Foundation GMD Laboratory, Sankt Augustin.		
	C43	MUHLENBEIN, H. et al., "Evolutionary Algorithms: From Recombination To Search Distributions," pp. 1-39, RWCP Theoretical Foundation GMD Laboratory, Sankt Augustin.		
	C44	MUHLENBEIN, H. et al., "Evolutionary Synthesis Of Bayesian Networks For Optimization," MIT Press		

Examiner Signature	George Davis	Date Considered	12/2/05
--------------------	--------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Complete if Known	
				Application No.	10/007,734
				Filing Date	November 9, 2001
				First Named Inventor	Yaochu Jin
				Art Unit	2121 2129
				Examiner Name	George B. Davis
Sheet	5	of	8	Attorney Docket Number	23077-06445

OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published		T ²
C.D.		Math6x9, September 1999, pp. 1-27.		
	C45	MUHLENBEIN, H. et al., "The Factorized Distribution Algorithm For Additively Decomposed Functions," Proceedings Of The 1999 Congress On Evolutionary Computation, 1999, IEEE Press, pp. 752-759, Real World Computing Partnership, Theoretical Foundation GMD Laboratory, Sankt Augustin, Germany.		
	C46	MUHLENBEIN, H. et al., "FDA – A Scalable Evolutionary Algorithm For The Optimization Of Additively Decomposed Functions," Evolutionary Computation, 1999, pp. 45-68, Vol. 7, No. 1, Theoretical Foundation GMD Lab, Real World Computing Partnership, GMD FZ Informationstechnik, St. Augustin.		
	C47	MUHLENBEIN, H. et al., "From Recombination Of Genes To The Estimation Of Distributions I. Binary Parameters," 10 pages, GMD – Forschungszentrum Informationstechnik, Sankt Augustin, Germany.		
	C48	OKABE, T. et al., "Evolutionary Multi-Objective Optimisation With A Hybrid Representation," 8 pages, Honda Research Institute Europe, Offenbach/M, Germany.		
	C49	ONO, I. et al., "A Real-Coded Genetic Algorithm for Function Optimization Using Unimodal Normal Distribution Crossover," Proceedings of the Seventh International Conference on Genetic Algorithms, pp. 246-253, 1997.		
	C50	ONO, I. et al., "A Real-Coded Genetic Algorithm For Function Optimization Using The Unimodal Normal Distribution Crossover," Technical Papers, 1999, pp. 1-11, University Of Tokushima, Tokushima, Japan, National Defence Academy, Yokosuka, Japan and Tokyo Institute Of Technology, Yokohama, Japan.		
	C51	ONO, I. et al., "A Robust Real-Coded Genetic Algorithm Using Unimodal Normal Distribution Crossover Augmented By Uniform Crossover: Effects For Self-Adaptation Of Crossover Probabilities," 8 pages, University of Tokushimsa, Tokushima, Japan, Tokyo Institute Of Technology, Yokohama, Japan and Tokyo Institute Of Technology, Yokohama, Japan.		
	C52	OPTIZ, D. et al., "Generating Accurate And Diverse Members Of A Neural-Network Ensemble," Advances In Neural Information Processing Systems 8, 7 pages, MIT Press, Cambridge, MA, Computer Science Department, University Of Minnesota, Duluth, MN and Computer Sciences Department, University Of Wisconsin, Madison, WI.		
	C53	PAUL, T. et al, "Reinforcement Learning Estimation Of Distribution Algorithm," 12 pages, Graduate School Of Frontier Sciences, The University Of Tokyo, Tokyo, Japan.		
	C54	PELIKAN, M. et al., "BOA: The Bayesian Optimization Algorithm," 8 pages, Illinois Genetic Algorithms Laboratory, Department Of General Engineering, University Of Illinois At Urbana-Champaign.		
C.D.	C55	PELIKAN, M. et al., "BOA: The Bayesian Optimization Algorithm," IlliGAL Report No. 99003, January 1999,		

Examiner Signature	George Davis	Date Considered	12/2/05
--------------------	--------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				Complete If Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application No.	10/007,734
				Filing Date	November 9, 2001
				First Named Inventor	Yaochu Jin
				Art Unit	2121-2129
				Examiner Name	George B. Davis
Sheet	6	of	8	Attorney Docket Number	23077-06445

OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
6210		pp. 1-12, Illinois Genetic Algorithms Laboratory, University Of Illinois At Urbana-Champaign, Urbana, IL.	
	C56	PELIKAN, M. et al., "Linkage Problem, Distribution Estimation, And Bayesian Networks," IlliGAL Report No. 98013, November 1998, pp. 1-24, Illinois Genetic Algorithms Laboratory, University Of Illinois At Urbana-Champaign, Urbana, IL.	
	C57	PELIKAN, M. et al., "Marginal Distributions In Evolutionary Algorithms," pp. 1-6, Slovak Technical University, Bratislava, Slovakia and GMD Forschungszentrum Informationstechnik, Sankt Augustin, Germany.	
	C58	PELIKAN, M. et al., "A Survey Of Optimization By Building And Using Probabilistic Models," IlliGAL Report No. 99018, September 1999, pp. 1-11, Illinois Genetic Algorithms Laboratory, University Of Illinois At Urbana-Champaign, Urbana, IL.	
	C59	PERRONE, M. et al., "When Networks Disagree: Ensemble Methods For Hybrid Neural Networks," October 27, 1992, 15 pages, Physics Department, Neuroscience Department, Institute For Brain And Neural Systems, Brown University, Providence, R.I., To Appear In "Neural Networks For Speech And Image Processing," R.J. Mammone, ed., Chapman-Hall, 1993.	
	C60	RATLE, A., "Accelerating The Convergence Of Evolutionary Algorithms By Fitness Landscape Approximation," pp. 87-96, Departement De Genie Mecanique, Universite de Sherbrooke, Quebec, Canada.	
	C61	ROSEN, B., "Ensemble Learning Using Decorrelated Neural Networks," To Appear In Connections Science, pp. 1-14, Computer Science Division, University Of Texas At San Antonio, San Antonio, TX.	
	C62	ROUSSEUW, P., "Silhouettes: A Graphical Aid To The Interpretation And Validation Of Cluster Analysis," Journal Of Computational And Applied Mathematics, 1987, pp. 53-65, Volume 20, University Of Fribourg, Fribourg, Switzerland.	
	C63	RUDLOF, S. et al., "Stochastic Hill Climbing With Learning By Vectors Of Normal Distributions," August 5, 1996, pp. 1-11, Fraunhofer-Institut For Production Systems And Design Technology (IPK), Berlin.	
	C64	SEBAG, M. et al., "Extending Population-Based Incremental Learning To Continuous Search Spaces," 10 pages, Ecole Polytechnique, Palaiseau Cedex and Universite d'Orsay, Orsay Cedex.	
	C65	TAKAHASHI, M. et al., "A Crossover Operator Using Independent Component Analysis for Real-Coded Genetic Algorithms," Tokyo Institute of Technology and National Institution for Academic Degrees, 7 pages, Japan.	
66	C66	THIERENS, D. et al., "Multi-Objective Mixture-Based Iterated Density Estimation Evolutionary Algorithms," 8 pages, Institute Of Information And Computing Sciences, Utrecht University, Utrecht, The Netherlands.	
	C67	TSUTSUI, S. et al., "Evolutionary Algorithm Using Marginal Histogram Models In Continuous Domain,"	

Examiner Signature	George Davis	Date Considered	12/2/05
--------------------	--------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

23077/06445/DOCS/1566688.1

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application No.	10/007,734
				Filing Date	November 9, 2001
				First Named Inventor	Yaochu Jin
				Art Unit	2121 2129
				Examiner Name	George B. Davis
Sheet	7	of	8	Attorney Docket Number	23077-06445

OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
C-07		IlligAL Report No. 2001019, March 2001, pp. 1-16, Illinois Genetic Algorithms Laboratory, University Of Illinois At Urbana-Champaign, Urbana, Illinois.	
	C68	TSUTSUI, S. et al., "Multi-Parent Recombination With Simplex Crossover In Real Coded Genetic Algorithms," 8 pages, Department Of Management And Information Science, Hannan University, Osaka, Japan and Graduate School Of Interdisciplinary Science And Engineering, Tokyo Institute Of Technology, Yokohama, Japan.	
	C69	TSUTSUI, S. et al., "Probabilistic Model-Building Genetic Algorithms Using Marginal Histograms In Continuous Domain," KES' 01, N. Baba et al. (Eds.), IOS Press, 2001, pp. 112-121, Department Of Management And Information, Hannan University, Osaka, Japan and Illinois Genetic Algorithms Laboratory, Department Of General Engineering, University Of Illinois At Urbana-Champaign, Urbana, IL.	
	C70	TSUTSUI, S., "Sampling Bias And Search Space Boundary Extension In Real Coded Genetic Algorithms," 8 pages, Department Of Management And Information Science, Hannan University, Osaka, Japan.	
	C71	TSUTSUI, S. et al., "Search Space Boundary Extension Method In Real-Coded Genetic Algorithms," Information Sciences, May 2001, pp. 229-247, Vol. 133, No. 3-4, Department Of Management And Information Science, Hannan University, Osaka, Japan and Illinois Genetic Algorithms Laboratory, University Of Illinois At Urbana-Champaign, Urbana, IL.	
	C72	TSUTSUI, S. et al., "Simplex Crossover And Linkage Identifications: Single-Stage Evolution VS. Multi-Stage Evolution," IEEE, 2002, 6 pages, Department Of Management And Information, Hannan University, Osaka, Japan and Illinois Genetic Algorithms Laboratory, Department Of General Engineering, University Of Illinois At Urbana-Champaign, Urbana, IL.	
	C73	TSUTSUI, S. et al., "Simplex Crossover And Linkage Learning In Real-Coded GAs," Genetic Algorithms: Poster Paper, p. 785, Department Of Management And Information Science, Hannan University, Osaka, Japan and Illinois Genetic Algorithms Laboratory, University Of Illinois At Urbana-Champaign, Urbana, IL.	
	C74	UEDA, T. et al., "Efficient Numerical Optimization Technique Based On Real-Coded Genetic Algorithm," Genome Informatics, 2001, pp. 451-453, Vol. 12, Graduate School Of Bioresource And Bioenvironmental Sciences, Kyushu University, Fukuoka, Japan and Department Of Biochemical Engineering and Science, Kyushu Institute Of Technology, Fukuoka, Japan.	
✓	C75	ULMER, H. et al., "Model-Assisted Steady-State Evolution Strategies," 12 pages, Center For Bioinformatics Tübingen (ZBIT), University of Tübingen, Tübingen, Germany.	
C-07	C76	YAO, X. et al., "Making Use Of Population Information In Evolutionary Artificial Neural Networks," IEEE Transactions On Systems, Man, And Cybernetics, June 1998, pp. 417-425, Vol. 28, No. 3.	

Examiner Signature	George Davis	Date Considered	12/2/05
--------------------	--------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application No.	10/007,734
				Filing Date	November 9, 2001
				First Named Inventor	Yaochu Jin
				Art Unit	2121 2129
				Examiner Name	George B. Davis
Sheet	8	of	8	Attorney Docket Number	23077-06445

OTHER REFERENCES - NON-PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published		T ²
G.B.	C77	ZHANG, B., "A Bayesian Framework for Evolutionary Computation," IEEE, 1999, pp. 722-728.		
G.B.	C78	ZHANG, B. et al., "Building Optimal Committees Of Genetic Programs," pp. 1-10, Artificial Intelligence Lab (SCAI) School Of Computer Science And Engineering, Seoul National University, Korea.		
G.B.	C79	HARIK, G. et al., "The Compact Genetic Algorithm," IlliGAL Report No. 97006, August 1997, pp. 1-21, Illinois Genetic Algorithms Laboratory, Department Of General Engineering, University Of Illinois At Urbana-Champaign, Urbana, IL.		

Examiner Signature	George Davis	Date Considered	12/2/05
--------------------	--------------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 608.

Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

23077/06445/DOCS/1566688.1